



Department of Statistics and Econometrics

DISCIPLINES FOR POSITION NO. 23, PROFESSOR: Statistics, Business Statistics (Romanian and German)

- 1.1. Central tendency measures for univariate data series.**
Definition, typology, positional averages examples. The case of binary variables.
- 1.2. Measures of variation**
Simple and synthetic measures of variation; measures of skewness
Measures of variation for bivariate data series; Analysis of variance – ANOVA
- 1.3. The statistical survey**
Definition, stages, basic concepts; sampling procedures; Checking representativity; estimation; calculation of the sample size; Normal distribution; Central limit theorem; calculation and interpretation of z values; point estimate and confidence interval construction, with known and unknown standard deviation
- 1.4. Hypotheses testing**
Concepts, steps, calculation and interpretation. Testing the population mean and variance.
- 1.5. Correlation and regression analysis.**
Correlation analysis (parametric and non-parametric)
Simple linear regression analysis and multiple regression models; Basic concepts; assumptions; parameter estimation; Testing parameters; estimator and estimate; properties of estimators; estimation intervals for the parameters; Validation of regression model; examples
- 1.6. Time series.**
Descriptive indicators for time series; Time series components; Trend analysis.
- 1.7. Index numbers**
Construction of elementary and aggregated index number. Weighting systems
- 1.8. Teritorial data series**
Basic concepts, typology, indicators; Examples from economic analysis



References

1. Andrei, T., Statistică și econometrie, Ed. Economică, București, 2004
2. Țițan, E., Statistică. Teorie și aplicații în sectorul terțiar, Ed. METEOR PRESS, București, 2012, România
3. Voineagu, V., Țițan, E., Țerban, R., Ghiță, S., Todose, D., Boboc, C., Pele, D., Teorie și practică econometrică, Ed. METEOR PRESS, București, 2007
4. SCHARNBACHER, KURT. Statistik im Betrieb : Lehrbuch mit praktischen Beispielen. Kurt Scharnbacher. 10 Aufl.. Wiesbaden : Gabler, 1994. 272, [56] p. : fig., tab. ; 24 cm. Indice p. 263-272 CZU 311 ; 338 ; 075.8 ; 519.22/.23. p. 261. ISBN 3409270353